## Limited Confidence in 2019 Ten-Week Brood Survey Results Due to Record Low Observations

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Due to record low observations and observer numbers, confidence in our 2019 ten-week brood survey results are limited. Over time, samples sizes for the ten-week brood observations have declined significantly. Using pheasant and ruffed grouse as an example, the 10-week brood survey averaged 572 observers during the 1970s, and these observers reported an average of 981 ruffed grouse and 469 pheasant broods per year. During this past decade, the number of observers and the broods they are seeing have dropped, with 60% fewer observers seeing 92% fewer pheasant broods and 82% fewer ruffed grouse broods compared to the 1970s. There are multiple factors that have contributed to these changes including fewer DNR employees, evolving work duties of DNR staff, landscape-scale changes in habitat, and variations in wildlife populations. The reduction in sample size has eroded confidence that these data truly reflect actual game bird brood production occurring on the landscape and make comparison to previous long-term data questionable. Wisconsin DNR is currently evaluating utility and methods for all wildlife surveys, and as part of that review will be assessing ten-week brood surveys and potential alternative methods, such as development of mobile applications or citizen science opportunities, to provide a more robust index of game bird brood production.

